

MRIDs from the EPA benchmark study for thiamethoxam:

| Chemical | Common name | Latin name | Species type | % a.i. | Endpoint | Duration | Toxicity Value in mg or μg a.i./L | MRID |
|--------------|-------------|------------|--------------|--------|----------|----------|--|----------|
| Thiamethoxam | | | | | | | Name, CAS, IUPAC name, chem class, empirical formula, structure, molecular mass | 44703304 |
| Thiamethoxam | | | | | | | Water solubility = 4100 mg/L | 44703305 |
| Thiamethoxam | | | | | | | Vapor pressure = 4.95×10^{-11} mm Hg | 44703305 |
| Thiamethoxam | | | | | | | Henry's Law Constant (calc in EPA report) = 4.63×10^{-15} atm m ³ /mol | |
| Thiamethoxam | | | | | | | Log KOW 25C = -0.13 | 44703305 |
| Thiamethoxam | | | | | | | Hydrolysis half life = 572 and 643 d pH 7 (stable) | 44703416 |
| Thiamethoxam | | | | | | | Hydrolysis half life = 4.2 and 8.4 d at pH 9 | 44703417 |
| Thiamethoxam | | | | | | | Direct aqueous photolysis = 3.36 d | 44715024 |
| Thiamethoxam | | | | | | | Direct aqueous photolysis = 3.90 d | 44715025 |
| Thiamethoxam | | | | | | | Soil photolysis = 80 d | 44715027 |
| Thiamethoxam | | | | | | | Soil photolysis = 97 d | 44715028 |
| Thiamethoxam | | | | | | | Aerobic soil metabolism = various, see report | 44703419 |
| Thiamethoxam | | | | | | | Aerobic soil metabolism = various, see report | 44703501 |

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|--------------|--|--|--|--|--|--|----------|
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 44703418 |
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 49589503 |
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 49589504 |
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 49589505 |
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 49589506 |
| Thiamethoxam | | | | | | Aerobic soil metabolism = various, see report | 49589507 |
| Thiamethoxam | | | | | | Anaerobic soil metabolism = various, see report | 49829901 |
| Thiamethoxam | | | | | | Anaerobic soil metabolism = various, see report | 49829902 |
| Thiamethoxam | | | | | | Aerobic aquatic metabolism = various, see report | 44715032 |
| Thiamethoxam | | | | | | Aerobic aquatic metabolism = various, see report | 49589509 |
| Thiamethoxam | | | | | | Anaerobic aquatic metabolism = various, see report | 44715029 |
| Thiamethoxam | | | | | | Anaerobic aquatic metabolism = various, see report | |

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|--------------|-------------------|-----------------------|-----------------|--|-----------|------|--|----------|
| Thiamethoxam | | | | | | | Anaerobic aquatic metabolism = various, see report | |
| Thiamethoxam | | | | | | | Soil partition KOC in L/kg OC = various, see report | 44703502 |
| Thiamethoxam | | | | | | | Soil partition KOC in L/kg OC = various, see report | 44703503 |
| Thiamethoxam | | | | | | | Soil partition KOC in L/kg OC = various, see report | 45640401 |
| Thiamethoxam | | | | | | | Soil partition KOC in L/kg OC = various, see report | 45084901 |
| Thiamethoxam | | | | | | | Aquatic field dissipation in paddy water or soil = various d, see report | 47558101 |
| Thiamethoxam | | | | | | | Aquatic field dissipation in paddy water or soil = various d, see report | 47558102 |
| Thiamethoxam | | | | | | | Aquatic field dissipation in paddy water or soil = various d, see report | 47558103 |
| Thiamethoxam | Bluegill sunfish | Lepomis macrochirus | Freshwater fish | | Mortality | 96 h | >114,000 | 44714917 |
| Thiamethoxam | Rainbow trout | Oncorhynchus mykiss | Freshwater fish | | NR | NR | NOEC = 20,000 | 44714923 |
| Thiamethoxam | Sheepshead minnow | Cyprinodon variegatus | Saltwater fish | | Mortality | 96 h | >111,000 | 44714920 |

* There was no MRID number associated with this study on your list. I included one, MRID 50344701, that may be responsive.

** Studies were ordered from Document Center.

| | | | | | | | | |
|--------------|-----------------------|-----------------------|---------------------------|------|-----------------|------|------------------------------|-----------------------|
| Thiamethoxam | Sheepshead minnow | Cyprinodon variegatus | Saltwater fish | | Length | | NOEC = 1700; LOEC = 4,100 | 49589511 |
| Thiamethoxam | | Chironomus riparius | Midge | | Immobility | 48 h | 35 | 44714918 |
| Thiamethoxam | | Chironomus riparius | Midge | | Larval survival | | NOEC = 0.74 | Cavallaro et al. 2016 |
| Thiamethoxam | Mysid shrimp | Mysidopsis bahia | Saltwater shrimp | | Mortality | 96 h | 6900 | 44714922 |
| Thiamethoxam | Mysid shrimp | Mysidopsis bahia | Saltwater shrimp | | Parent survival | | NOEC = 1100; LOEC = 2000 | 49589510 |
| Thiamethoxam | Cyanobacteria | Skeletonema costatum | Aquatic nonvascular plant | | | 96 h | IC50 = >90,200 | 49346607 |
| Thiamethoxam | Cyanobacteria | Skeletonema costatum | Aquatic nonvascular plant | | Growth | | NOEC = 12,000; LOEC = 24,000 | 49346607 |
| Thiamethoxam | Duckweed | Lemna gibba | Aquatic vascular plant | | | 7 d | IC50 = >90,200 | 44714925 |
| Thiamethoxam | Duckweed | Lemna gibba | Aquatic vascular plant | | Phytotoxicity | | NOEC = 22,000; LOEC = 43,900 | 44714925 |
| Thiamethoxam | | | | | | | | 50131101 |
| Thiamethoxam | | | | | | | | 48432527 |
| Thiamethoxam | | | | | | | | 48432528 |
| Thiamethoxam | | | | | | | | 48432529 |
| Thiamethoxam | Rainbow trout | Oncorhynchus mykiss | Freshwater fish | 98.6 | Mortality | 96 h | >109,000 | 44714916 |
| Thiamethoxam | Rainbow trout | Oncorhynchus mykiss | Freshwater fish | 99.2 | | 60 d | NOEC = 20,000 | 44714923 |
| Thiamethoxam | Bluegill sunfish | Leiopomis macrochirus | Freshwater fish | 99.2 | Mortality | 96 h | >114,000 | 44714917 |
| Thiamethoxam | Sheepshead minnow | Cyprinodon variegatus | Saltwater fish | 99.2 | Mortality | 96 h | >111,000 | 44714920 |
| Thiamethoxam | Sheepshead minnow | Cyprinodon variegatus | Saltwater fish | 99.8 | | 33 d | NOEC = 1,700; LOEC = 4,100 | 49589511 |
| Thiamethoxam | Red swamp crayfish | Procambarus clarkia | Crayfish | 99.5 | Mortality | 96 h | 967 | 120043 |
| Thiamethoxam | Red swamp crayfish | Procambarus clarkia | Crayfish | 98.4 | | 96 h | 2310 | 47558106 |
| Thiamethoxam | | Daphnia magna | Waterflea | 98.6 | | 48 h | >106,000 | 44714919 |
| Thiamethoxam | Wavy-rayed lampmussel | Lampsilis fasciola | Freshwater mussel | >95 | Mortality | 48 h | >691 | 173464 |
| Thiamethoxam | | Chironomus riparius | Midge | 97.4 | | 48 h | 35 | 44714918 |
| Thiamethoxam | | Anopheles stephensi | Mosquito | 99.1 | Mortality | 72 h | 52 | 173152 |
| Thiamethoxam | | Anopheles stephensi | Mosquito | 99.1 | Mortality | 72 h | 64 | 173152 |
| Thiamethoxam | | Aedes aegypti | Mosquito | 99.5 | Mortality | 48 h | 130 | 168249 |
| Thiamethoxam | | Aedes aegypti | Mosquito | 99.5 | Mortality | 72 h | 90 | 168249 |

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|--------------|----------------|----------------------------------|-------------------|-------------|-------------------------------|------|-----------------------------------|----------|
| Thiamethoxam | | <i>Aedes aegypti</i> | Mosquito | 99.1 | Mortality | 72 h | 298 | 173152 |
| Thiamethoxam | | <i>Culex quinquefasciatus</i> | Mosquito | 99.1 | Mortality | 72 h | 343 | 173152 |
| Thiamethoxam | | <i>Cloeon dipterum</i> | Mayfly | Formulation | | 96 h | 20 | 173151 |
| Thiamethoxam | Mysid shrimp | <i>Mysidopsis bahia</i> | Saltwater shrimp | 99.2 | Mortality | 96 h | 6900 | 44714922 |
| Thiamethoxam | Eastern oyster | <i>Crassostrea virginica</i> | saltwater oyster | 99.2 | Shell deposition | 96 h | >119,000 | 44714921 |
| Thiamethoxam | | <i>Cloeon dipterum</i> | Mayfly | Formulation | Immobility | 28 d | 0.43 | 173151 |
| Thiamethoxam | | <i>Mysidopsis bahia</i> | Saltwater shrimp | 99.8 | Parent survival | 28 d | NOEC = 1100; LOEC = 2400 | 49589510 |
| Thiamethoxam | | <i>Daphnia magna</i> | Waterflea | 98.6 | Number offspring | 21 d | NOEC = 50,000; LOEC = 101,000 | 44714924 |
| Thiamethoxam | | <i>Chironomus riparius</i> | Midge | 98.6 | | 30 d | NOEC = <1/LOD; LOEC = 6 | 44714928 |
| Thiamethoxam | | <i>Chironomus riparius</i> | Midge | 98.6 | Emergence | 30 d | NOEC = 10; LOEC = 20 | 44714928 |
| Thiamethoxam | | <i>Chironomus dilutus</i> | Midge | 99.8 | Weight | 10 d | NOEC = 120; LOEC = 360 | 49589512 |
| Thiamethoxam | Cyanobacteria | <i>Anabena flos-aquae</i> | Cyanobacteria | 99.8 | Cell density | 96 h | 105,000 | 49346605 |
| Thiamethoxam | Cyanobacteria | <i>Anabena flos-aquae</i> | Cyanobacteria | 99.8 | | 96 h | NOEC = 47,000; LOEC = 97,000 | 49346605 |
| Thiamethoxam | Green algae | <i>Selenastrum capricornutum</i> | Green algae | 98.6 | | 96 h | >97,000 | 44714926 |
| Thiamethoxam | Green algae | <i>Selenastrum capricornutum</i> | Green algae | 98.6 | | 96 h | NOEC = 97,000 | 44714926 |
| Thiamethoxam | | <i>Navicula pelliculosa</i> | Freshwater diatom | 99.8 | | 96 h | >98,000 | 49346606 |
| Thiamethoxam | | <i>Navicula pelliculosa</i> | Freshwater diatom | 99.8 | | 96 h | NOEC = 98,000 | 49346606 |
| Thiamethoxam | Mallard duck | <i>Anas platyrhynchos</i> | Mallard duck | 98.6 | Mortality | | 576 mg/kg bw/d | 44703307 |
| Thiamethoxam | Mallard duck | <i>Anas platyrhynchos</i> | Mallard duck | 98.6 | Mortality | | >5,200 mg/kg-diet | 44703310 |
| Thiamethoxam | Mallard duck | <i>Anas platyrhynchos</i> | Mallard duck | 98.6 | Mortality | | NOEC = 1,300 mg/kg-diet | 44703310 |
| Thiamethoxam | Mallard duck | <i>Anas platyrhynchos</i> | Mallard duck | 98.3 | Weight loss in parental males | | NOEC = 300; LOEC = 900 mg/kg-diet | 44703311 |

** Study ordered from Document Center.